REVIEWS.

Art. XII.—*A Treatise on the Continued Fevers of Great Britain.* By Charles Murchison, M. D., Fellow of the Royal College of Physicians, Senior Physician to the London Fever Hospital, &c. &c. &c. London, Parker, Son & Brown, 1862. 8vo. pp. 638.

Dr. Murchison's treatise is a valuable contribution to medical literature. Such a work was called for. As the author remarks, notwithstanding the great advance of late years in our knowledge of the continued fevers, no systematic elaborate treatise on these fevers has been published by any English physician for nearly a quarter of a century. We have had in this country the excellent treatise by Bartlett; but important additions to our knowledge have been made since the latter work was written, and, moreover, the periodical fevers and yellow fever being included in Bartlett's treatise, the space devoted to the consideration of continued fevers was necessarily somewhat limited. We are glad that Dr. Murchison has restricted himself to the continued fevers. As a class, these are sufficiently isolated from other fevers to be considered separately, and they form a province of practical medicine sufficiently extensive to require a volume.

The work is divided into eight chapters. Chapter I. is devoted to introductory remarks on the theory of fevers, etc. Chapter II. is occupied with the consideration of typhus. In Chapter III. relapsing fever is considered. Of Chapter IV. the subject is typhoid fever. In the remaining chapters are discussed the specific distinctions of typhus and typhoid fever, the symptoms and varieties of simple continued fever or febricula, the rate of mortality of continued fevers, and the importance of isolating fever patients in hospitals. A copious bibliography, arranged chronologically from 1500 to the present time, forms a valuable appendix to the work.

We do not propose to prepare an analytical review of the work; it would be difficult to do this, inasmuch as the work is not written to set forth any new views, or to advocate any particular doctrines, but to present a comprehensive exposition of our existing knowledge together with the practical conclusions most consistent with this knowledge. Our estimation of the value of the work, based on a careful examination of it, leads us to recommend it most cordially to those who wish to know what is known of the continued fevers; and it would be impossible, were it desirable, within the limits of a review, to give a digest which should serve for the reader as a substitute for a perusal of the work itself. We shall content ourselves with adverting to the author's views on a few of the important questions of which he treats.

The theory of fever which, in the author's opinion, accords with the present extent of our information, is summed up in the following propositions:—

> "1. The fever-poison enters the blood.
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> "2. The nervous system (and particularly the sympathetic and vagus), is paralyzed.

"3. The retrograde metamorphosis of the muscles and other tissues is increased, while, at the same time, little or no fresh material is assimilated to compensate for the loss. Increased temperature, great muscular prostration, and loss of weight are the results.

"4. This destruction of tissue is increased by the accelerated action of the heart.

"5. The non-elimination of the products of tissue-metamorphosis gives rise to cerebral symptoms and local inflammation.

"6. On the elimination of the fever-poison, and of the products of tissue-metamorphosis, the nerves resume their normal functions, the undue consumption of tissue is checked, and the patient regains his strength and weight. It is impossible to say why this termination occurs at a definite time in different fevers."

Assuming that these propositions express correctly the pathology of fever, the objects of treatment are as follows:—

"1. To neutralize the poison and improve the state of the blood.

"2. To promote elimination.

"3. To reduce the temperature and the action of the heart.

"4. To sustain the vital powers by stimulating the paralyzed nervous system, and supplying nourishment to compensate in some measure for the increased consumption of tissue.

"5. To relieve distressing symptoms.

"6. To obviate and counteract local complications."

In treating successively of the three forms of continued fever, the author gives first a succinct historical account of each, next its geographical distribution, and next the etiology. He then takes up the clinical description, and introduces a few illustrative cases. An analysis of the principal symptoms comes next, followed by a consideration of the complications and sequelæ, the varieties, the diagnosis, prognosis, and mortality, the anatomical lesions and the treatment. This arrangement, it will be seen, is comprehensive, and in the several divisions just named, our existing knowledge is concisely, clearly, and fairly presented. The work bears internal evidence of the author's practical familiarity with the continued fevers, and also of his thorough acquaintance with the literature of the subject. As regards the latter, he has not overlooked the contributions of American writers. He accords to Drs. Gerhard and Pennock the credit of priority in the contribution of facts establishing the individuality of typhus.

Of the three continued fevers, the *relapsing fever* will possess comparatively little interest for the American reader. The author states that this fever is not indigenous with us. He is probably correct in this statement. Aside from five cases reported by Dr. A. Dubois as cases of typhus followed by a severe form of inflammation of the eye,[1] and fifteen cases reported by the writer of this article[2] (to which reference is made by the author), we are not aware of any reports of cases observed on this side of the Atlantic. Dr. Dubois' cases occurred in 1847–48, and our cases in 1850–51. The latter cases were all among immigrants from Ireland; but in six cases the patients had been in this country for a period varying from six months to five years. It is hardly probable that, in the latter cases, the disease was imported by the patients. In Dr. Dubois' report the facts respecting the time of residence in this country are not stated. It may be that this form of fever is occasionally produced here, but is confounded with typhus or typhoid and perhaps with remitting fever. We believe that it is not doing injustice to our brethren to say that very little attention has, as yet, been given in this country, to the subject of relapsing fever, so that it would not be very remarkable if cases are not recognized as such. This was true of the cases observed by Dr. Dubois, and by us at the time the cases were under observation. It is desirable that practitioners in this country should be aware of the traits which distinguish relapsing fever, so as to be prepared to recognize examples of it should they occur, and we therefore quote the summary which the author embodies in his definition, as follows:—

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[1] Trans. Am. Med. Association, vol. i., 1848.

[2] Clinical Reports on Continued Fever, p. 365.

> "A very abrupt invasion marked by rigors or chilliness; quick, full, and often bounding pulse; white moist tongue, sometimes becoming dry and brownish; tenderness at the epigastrium; vomiting and often jaundice; enlarged liver and spleen; constipation; skin very hot and dry; no characteristic eruption; high coloured urine; severe headache, and pains in the back and limbs; restlessness and occasionally acute delirium; an abrupt cessation of all these symptoms with free perspiration about the fifth or seventh day, after a complete apyretic interval during which the patient may get up and walk about, a short relapse on the fourteenth day from the first commencement running a similar course to the first attack, and terminating on or about the third day of the relapse; sometimes a second, and even a fifth relapse; mortality small, but occasionally death from sudden syncope, or from suppression of urine and coma. After death, no specific lesion, but usually enlargement of the liver and spleen."

Whether this form of fever be a distinct species, or only a variety of the other forms of continued fever, is a question which probably all will not consider as yet positively settled. And assuming it to be a distinct species, there are certain points which require further investigation; for example, as to its contagiousness. Dr. Murchison following Dr. Jennér and others, regards it as contagious. He attributes its prevalence as an epidemic to scarcity and famine; indeed, he calls it relapsing or famine fever. Deprivation of food certainly did not enter into the causation in the cases observed by us. We cannot, however, enter into a discussion of these and other points of interest.

Typhoid fever the author proposes to call *pythogenic*, a name which denotes its supposed source to be putrescent organic matter. This title seems to us objectionable. It is based on a view of its causation which must be considered as problematical; and, certainly, the disease does not spring from a putrescent source when it is communicated by contagion. We agree with the author in his objection to the term *enteric fever*, on the ground that it conveys the erroneous impression that the fever is the result of the intestinal lesion. On the whole, the much abused name *typhoid* seems to us, in the existing state of our knowledge, to be as good as any which can be suggested, and we opine that the disease will continue to be known by this name in spite of attempts to substitute another cognomen.

Dr. Murchison holds to the non-identity of typhus and typhoid fever. He began his clinical studies with the belief in their identity, adopting the opinion of his teachers; but bed-side observation led him to the conclusion that these two forms of fever are essentially distinct, that they are two diseases, each having its own special course. Are we not at length, in view of all the facts which clinical research has developed, warranted in considering this much mooted question fully settled? Is there any occasion for protracting the discussion? We can see no other ground for the affirmative to the latter question than that a few are still unwilling to abandon views to which they are committed. If the evidence of the non-identity of typhus and typhoid fever be not complete, we are warranted in disinterring the question as to the identity of measles and scarlet fever, which has scarcely been buried half a century. Dr. Murchison does not present any new facts bearing on the non-identity of typhus and typhoid fever, but he states the evidence justly and fairly, derived from the lesions found after death, a comparison of the phenomena during life, the existence of distinct poisons producing the two diseases etc. We commend this part of the work to those who have formed an opinion without a knowledge of all the facts bearing on this matter.

An interesting question which claims investigation is, whether the two diseases may not sometimes coexist. Dr. M. reports three cases in which they appeared to be combined. We know that the eruptive fevers may be blended, and this, we are persuaded, is true of remitting and typhoid fever. *A priori* there is no incongruity in the supposition, but further clinical observation with reference to this point is desirable.

There is no more room for doubting the occasional contagiousness of typhoid fever than its being a distinct species. The author adduces ample evidence of its communicability, but in none of the instances cited is the proof so conclusive as in the epidemic which came under our observation in 1843, an account of which was published in the *American Journal of the Medical Sciences* in July, 1845.[1] The combination of circumstances in that epidemic was so remarkable, as bearing on the question of contagiousness, that we are led here to reproduce the important facts for the sake of directing the attention of those of our readers who may be interested in this still mooted question, to the more detailed account.

A small isolated settlement known as North Boston, in the western part of New York, consisted in the autumn of 1843, of nine families and forty-three persons. The settlement embraced an inn and a group of houses within an area of ten rods. Two houses were situated at a distance of forty rods from the inn, and one of those houses was separated by a small stream. A young man from Massachusetts, travelling in the stage coach, had been ill for several days, and, at length, on the coach arriving at this settlement, was unable to proceed, and was left at the inn. Prior to this occurrence the settlement was healthy, and typhoid fever was unknown in that part of the State. The prevailing fever was intermitting and remitting. The stranger lingered twenty-nine days and died. He was seen by several physicians, and from their account of the symptoms the disease was undoubtedly typhoid fever. Twenty-three days after the arrival of the stranger, two members of the family of the inn-keeper were attacked, and subsequently five others in this family. In all the other families situated within ten rods of the inn, excepting a single family, cases occurred more or less in number, within a month from the date of the first case after the stranger arrived; and during this period more than half the population of the settlement were affected. The disease then ceased further progress, no cases afterward occurring. The disease was shown to be typhoid fever by the symptoms in several of the cases which were recorded by the bed-side, and by the characteristic intestinal lesions in the autopsy of a fatal case. The family in which no cases occurred was the only family, of the seven families residing within a few rods of the inn, the members of which were not brought into close contact with the disease. This family were on terms of non-intercourse with the inn-keeper and with the other families who were tenants and dependants of the inn-keeper. None of the members of this family saw any patient affected with the disease. And in consequence of the exemption of this family and the feeling of animosity in the minds of the inn-keeper and others, it was supposed that the common well had been poisoned. This suspicion was strengthened by the fact that the family referred to had been denied access to the well, which was used in common. All these facts were ascertained by a personal investigation on the spot by the writer. The water from the well was examined by competent chemists and found to be remarkably pure. Now, in view of the facts just stated, if it be contended that the disease was not transported to this settlement and diffused by contagion, it is necessary to admit a series of coincidences almost incredible. The circumstances embrace everything which could be desired for a fair experiment in order to test the contagiousness of a disease. In fact if every circumstance had been deliberately selected and arranged for an experiment of that kind, they could hardly have been more complete.

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[1] See, also, a fuller account in Clinical Reports on continued fever by the writer of this article.

Dr. Murchison's views of the treatment of typhus and typhoid fever seem to us, in the main, to be sound and judicious. We agree with him in thinking that there is a tendency at present to a too indiscriminate and excessive use of alcoholic stimulants. The rules which he lays down with respect to this important part of the treatment, are consistent alike with proper prudence and a due sense of its importance. He regards tea and coffee as highly useful, acting as nervous stimulants and retarding the waste of the tissues. With respect to the efficiency of the mineral acids, he does not join in the rather extravagant statements of Huss and Chambers; but, after a trial of them in many hundred cases, he believes them to be of much value. He prefers a combination of the hydrochloric and sulphuric. An injunction with respect to the administration of food is, we suspect, not less called for than judicious. It is that food should not be given at shorter intervals than two hours. We are sure that it is too often the practice in this country, as well as in Europe, to push the frequent administration of food to an extreme, leaving the patient scarcely any period for repose.

With these few references we take leave of the work as a reviewer, but not as a reader. It is a work not only to be read but often referred to. It is a great deal to say of such a work that it comprises nearly all of our existing knowledge which is of practical importance to the medical practitioner; but we believe that this may justly be said of Dr. Murchison's treatise.

A. F.